Applicant: Dharma R. Kodali et al. Attorney's Docket No.: 07148-072003

Serial No.: Unknown

Filed: November 17, 2003

Page : 10 of 14

Amendments to the Claims:

Please cancel claims 1-23. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-23 (Canceled)

- 24. (New) A method of making a plant producing seeds, said method comprising the steps of crossing one or more plants of a first plant line with one or more plants of a second plant line and selecting one or more progeny plants of said cross that produce seeds having a long chain monounsaturated fatty acid content of at least about 82% and a erucic acid content of at least about 15% based on total fatty acid composition, wherein seeds of said first plant line have a erucic acid content of at least about 45% based on total fatty acid composition and seeds of said second plant line have an oleic acid content of at least about 84% based on total fatty acid composition.
- 25. (New) The method of claim 24, wherein said one or more plants of said first and second plant lines are *Brassica* plants.
- 26. (New) The method of claim 25, wherein said one or more plants of said first plant line are *Brassica napus* plants.
- 27. (New) The method of claim 25, wherein said one or more plants of said second plant line are *Brassica napus* plants.
- 28. (New) The method of claim 25, wherein said one or more plants of said first plant line are *Brassica rapa* plants.

Applicant: Dharma R. Kodali et al.

Attorney's Docket No.: 07148-072003

Serial No.: Unknown

Filed: November 17, 2003

Page : 11 of 14

29. (New) The method of claim 25, wherein said one or more plants of said second plant line are *Brassica rapa* plants.

- 30. (New) The method of claim 25, wherein said one or more plants of said first plant line are *Brassica juncea* plants.
- 31. (New) The method of claim 25, wherein said one or more plants of said second plant line are *Brassica juncea* plants.
- 32. (New) The method of claim 24, wherein said one or more progeny plants produce seeds having an oleic acid content of at least about 37% based on total fatty acid composition.
- 33. (New) The method of claim 32, wherein said one or more progeny plants produce seeds having an oleic acid content of at least about 42% based on total fatty acid composition.
- 34. (New) The method of claim 33, wherein said one or more progeny plants produce seeds having an oleic acid content from about 47% to about 56% based on total fatty acid composition.
- 35. (New) The method of claim 24, wherein said one or more progeny plants produce seeds having an eicosenoic acid content of at least about 14% based on total fatty acid composition.
- 36. (New) The method of claim 35, wherein said one or more progeny plants produce seeds having an eicosenoic acid content from about 15% to about 21% based on total fatty acid composition.

Applicant: Dharma R. Kodali et al.

Attorney's Docket No.: 07148-072003

Serial No.: Unknown

Filed: November 17, 2003

Page : 12 of 14

37. (New) The method of claim 24, wherein said monounsaturated fatty acid content of said progeny plant seeds is from about 85% to about 90%.

- 38. (New) The method of claim 24, wherein said erucic acid composition of said progeny plant seeds is from about 17% to about 31% based on total fatty acid composition.
- 39. (New) The method of claim 24, wherein said one or more progeny plants produce seeds having a saturated fatty acid content of less than about 7% based on total fatty acid composition.
- 40. (New) The method of claim 24, wherein said one or more progeny plants produce seeds having a polyunsaturated fatty acid content of less than about 11% based on total fatty acid composition.
- 41. (New) The method of claim 24, wherein one or more progeny plants have a mutation in the nucleotide sequence of an oleic acid desaturase gene, and wherein said mutation renders the activity of the encoded gene product non-functional.
- 42. (New) The method of claim 24, wherein said one or more progeny plants have a mutation in the nucleotide sequence of an linoleic acid desaturase gene, and wherein said mutation renders the activity of the encoded gene product non-functional.
- 43. (New) The method of claim 24, wherein said one or more progeny plants have a transgene comprising a promoter operably linked to an oleic acid desaturase gene, and wherein expression of said transgene reduces oleic acid desaturase activity.

Applicant: Dharma R. Kodali et al. Attorney's Docket No.: 07148-072003

Serial No.: Unknown

Filed: November 17, 2003

Page : 13 of 14

44. (New) The method of claim 24, wherein said one or more progeny plants have a transgene comprising a promoter operably linked to an linoleic acid desaturase gene, and wherein expression of said transgene reduces linoleic acid desaturase activity.